

FIG. 1

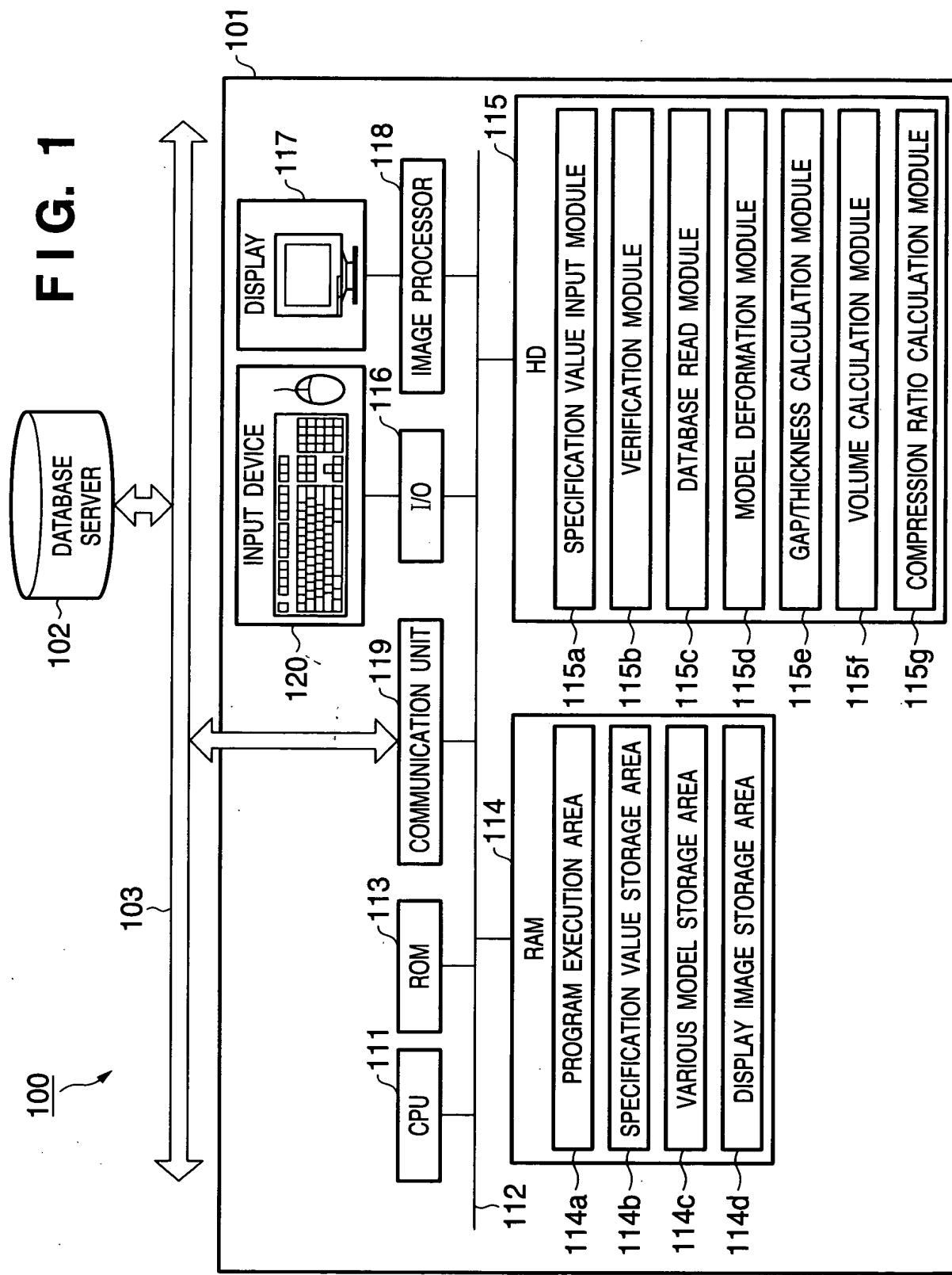
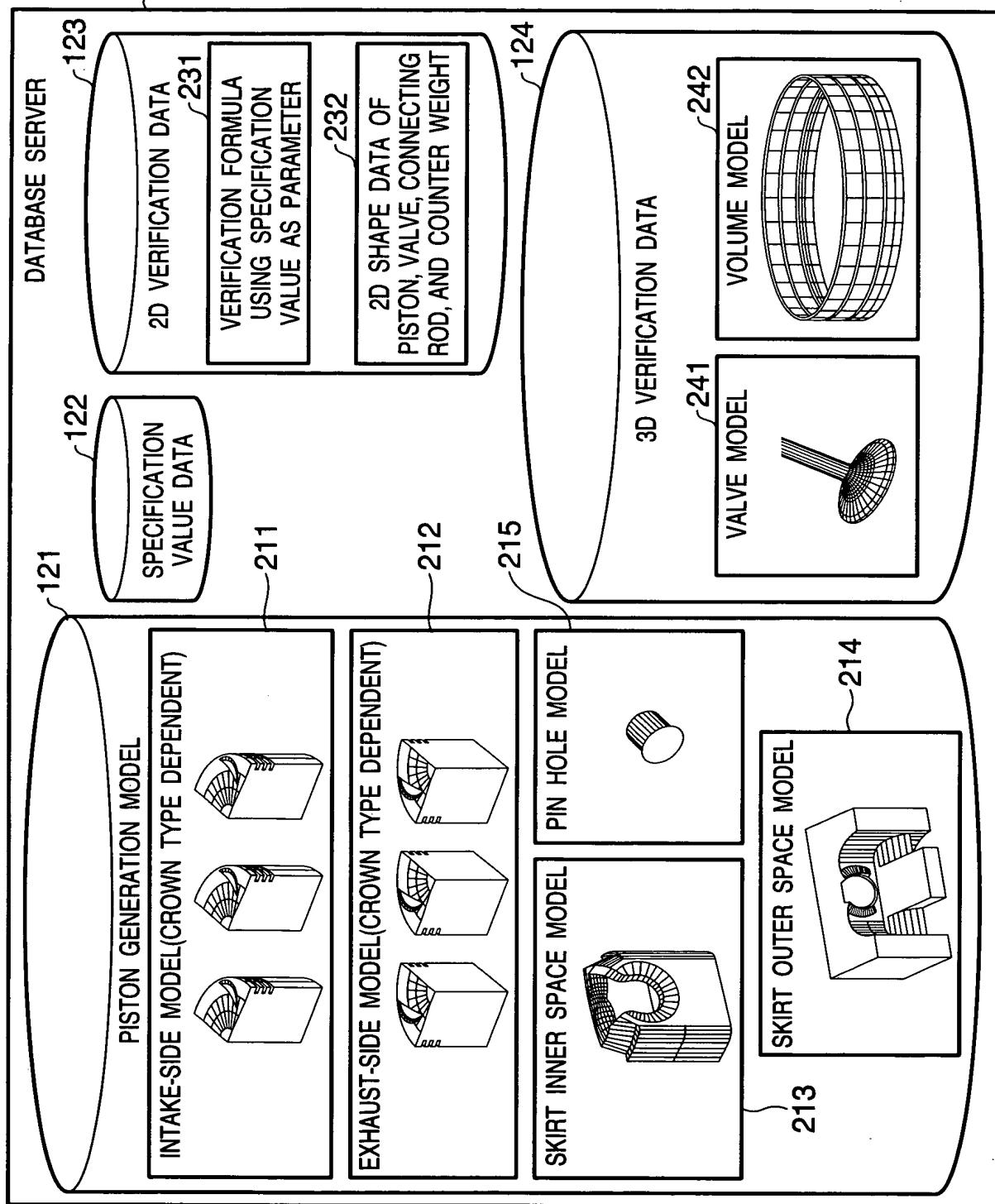


FIG. 2



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FIG. 3

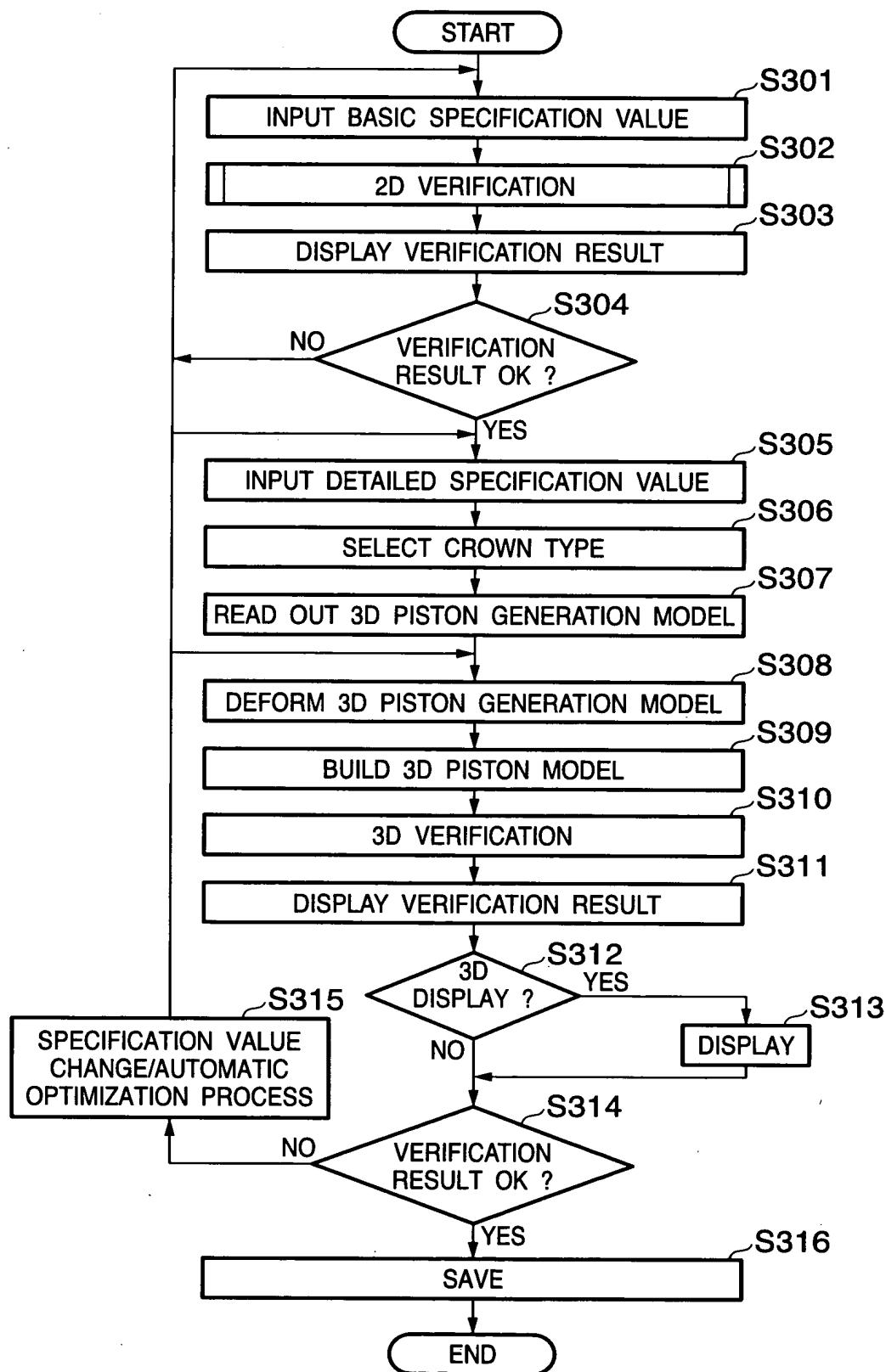


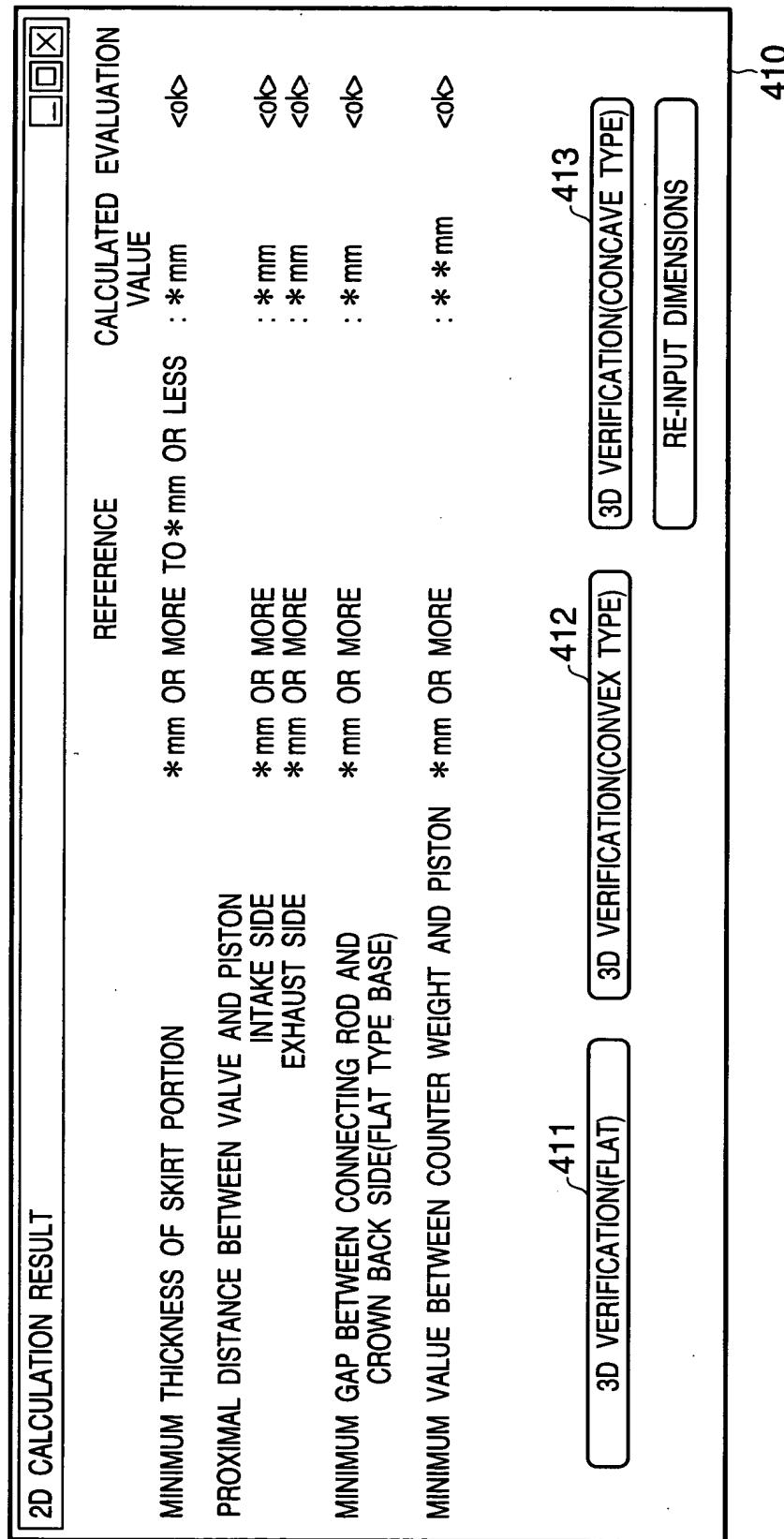
FIG. 4A

SPECIFICATION VALUE INPUT	
TARGET VALUE	TARGET COMPRESSION RATIO : <input type="text" value="*"/> * mm
	MINIMUM THICKNESS REFERENCE : <input type="text" value="*"/> mm TARGET CLEARANCE REFERENCE : <input type="text" value="*"/> mm
CAM LIFT DATA	INTAKE SIDE : <input type="text" value="*"/> * / * * .txt
VALVE TIMING	INTAKE SIDE : <input type="text" value="*"/> * °CA
LAYOUT CONDITION	BORE DIAMETER : <input type="text" value="*"/> * mm CONNECTING ROD LENGTH : <input type="text" value="*"/> * mm COMBUSTION CHAMBER CAPACITY : <input type="text" value="*"/> * cc INTAKE VALVE ANGLE : <input type="text" value="*"/> °
	CRANK DIAMETER: <input type="text" value="*"/> * mm C/W VIRTUAL DISK RADIUS : <input type="text" value="*"/> * mm VALVE CENTER HEIGHT : <input type="text" value="*"/> * mm EXHAUST VALVE ANGLE : <input type="text" value="*"/> °
PISTON SPECIFICATION VALUE	PISTON DIAMETER : <input type="text" value="*"/> * mm INTAKE RECESS CENTER : <input type="text" value="*"/> * mm INTAKE RECESS DEPTH : <input type="text" value="*"/> * mm CROWN THICKNESS : <input type="text" value="*"/> * mm
	EXHAUST RECESS CENTER : <input type="text" value="*"/> * mm EXHAUST RECESS DEPTH : <input type="text" value="*"/> * mm
VALVE SPECIFICATION VALUE	INTAKE VALVE DIAMETER : <input type="text" value="*"/> * mm EXHAUST VALVE DIAMETER : <input type="text" value="*"/> * mm
	DIMENSION INDICATING SHAPE OF SKIRT INNER SPACE DIMENSION INDICATING SHAPE OF SKIRT OUTER SPACE DIMENSION INDICATING POSITION AND SHAPE OF RING GROOVE DIMENSION INDICATING POSITION AND SHAPE OF PIN HOLE

400

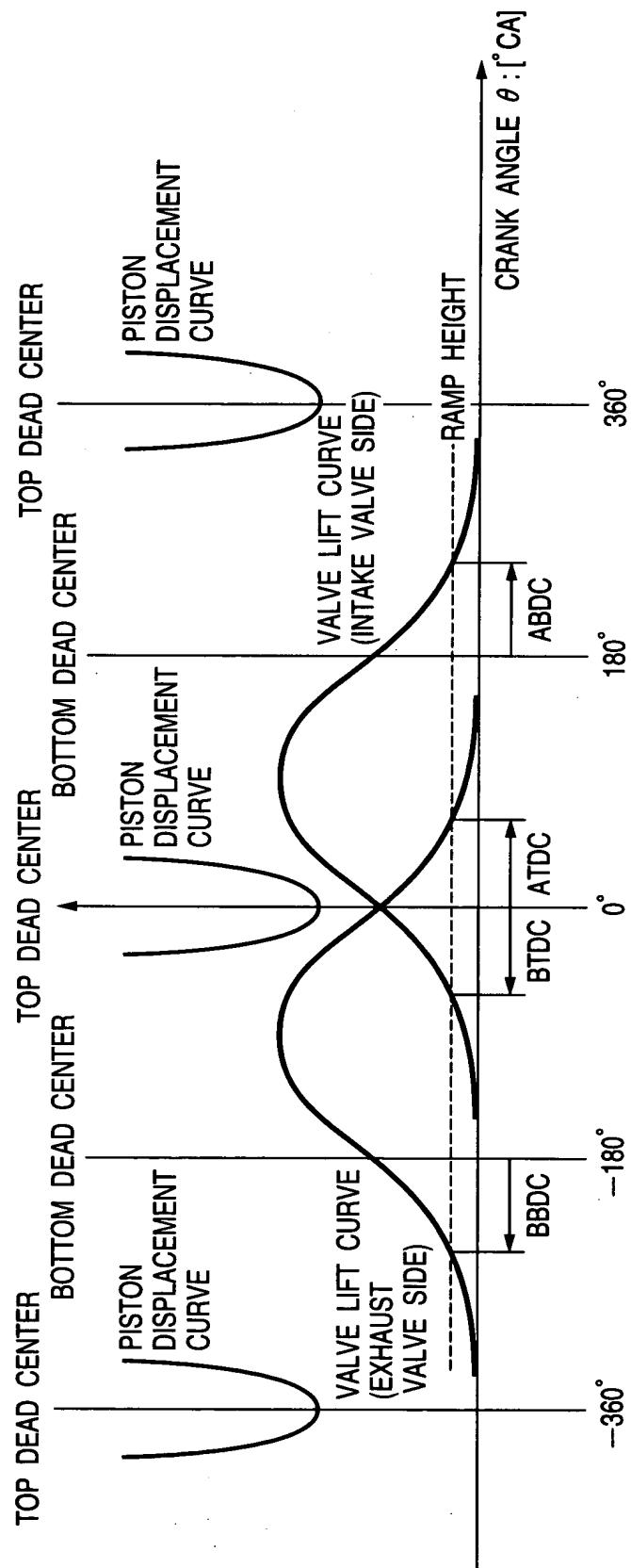
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FIG. 4B



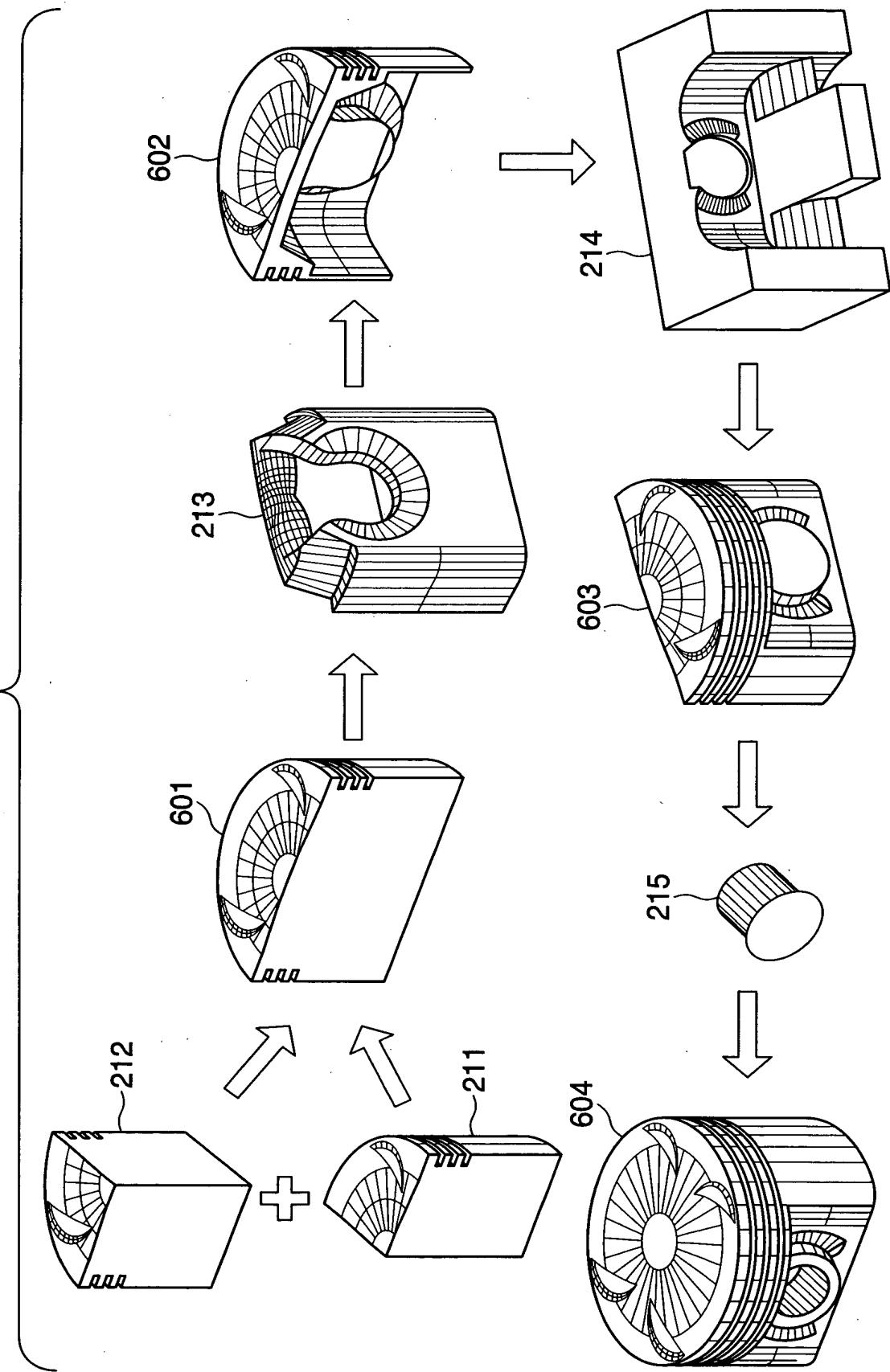
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FIG. 5



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FIG. 6



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FIG. 7A

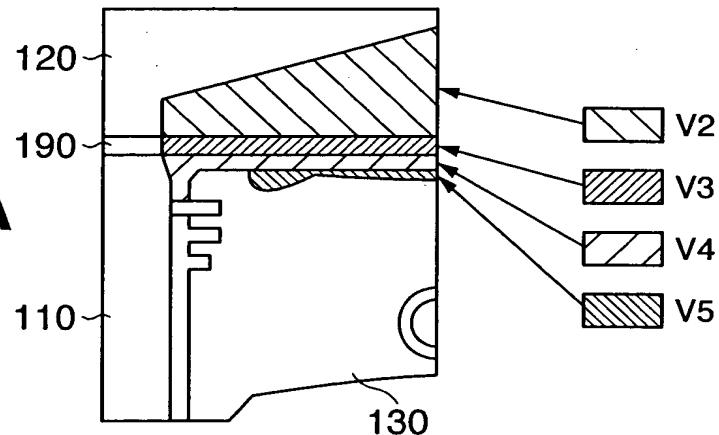


FIG. 7B

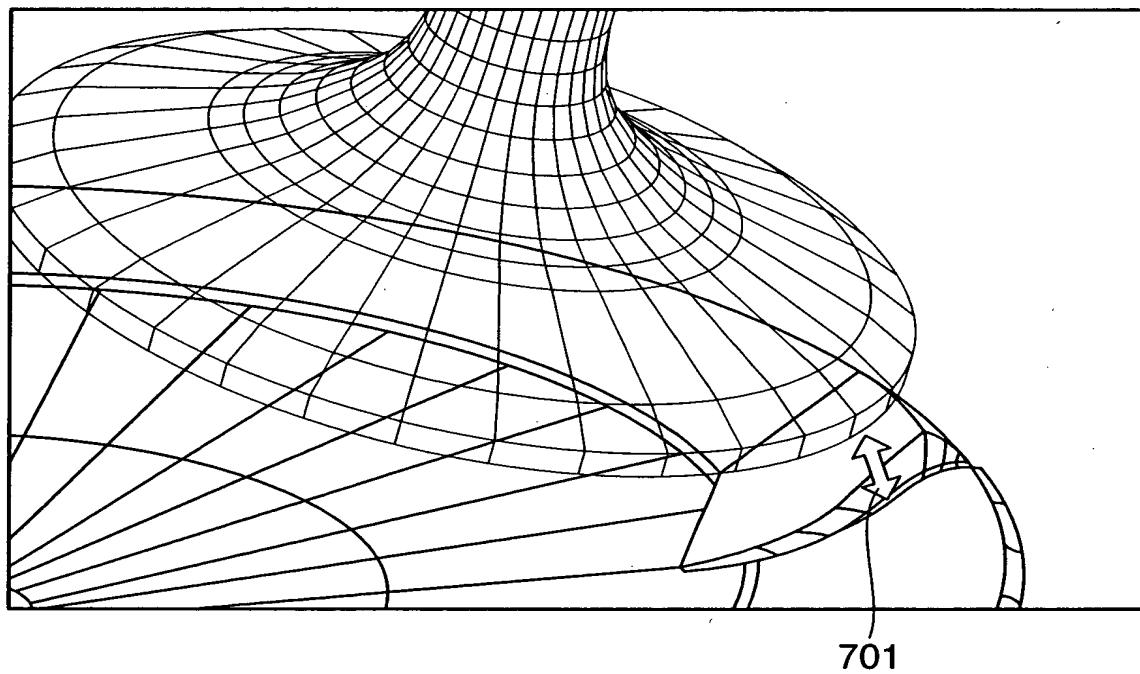
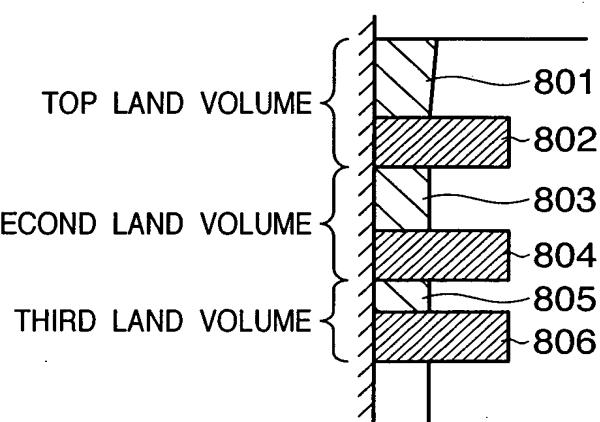


FIG. 7C



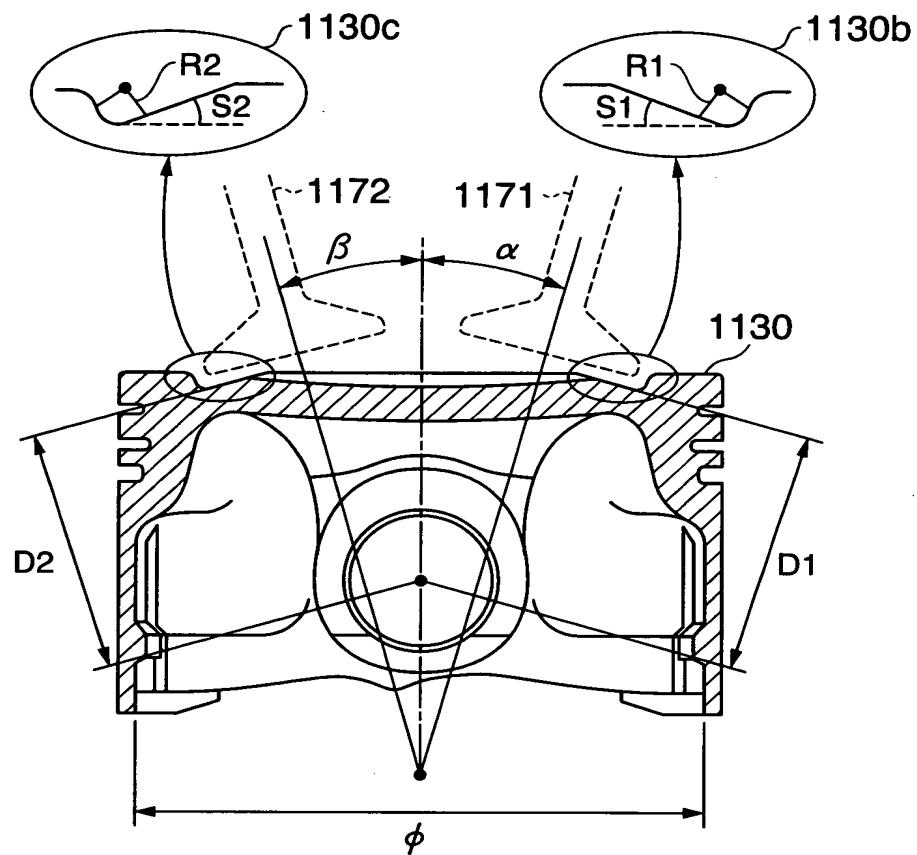
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FIG. 8

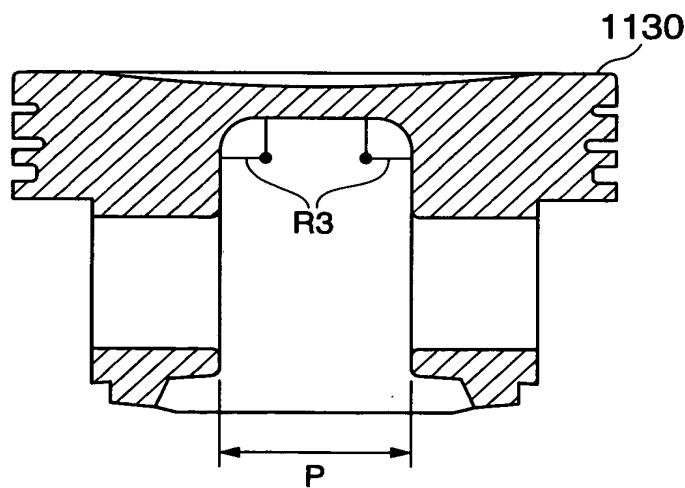
3D VERIFICATION RESULT			
		MEASURED	EVALUATION
<COMPRESSION RATIO>		VALUE	
• TARGET COMPRESSION RATIO(INPUT VALUE) :		* *.* *	
• COMPRESSION RATIO(MEASUREMENT RESULT FROM 3D MODEL) :		* *.* *	
<GAP AND THICKNESS>		MEASURED	EVALUATION
• VALVE-PISTON GAP		VALUE	
INTAKE VALVE SIDE :		*.* mm	<ok>
EXHAUST VALVE SIDE :		*.* mm	<ok>
• SHORTEST DISTANCE BETWEEN CONNECTING ROD AND CROWN BACK SURFACE :		*.* mm	<ok>
• MINIMUM THICKNESS OF TOP RING CROOVE BACK SURFACE :		*.* mm	<ok>
• MINIMUM THICKNESS OF CROWN BACK SURFACE :		*.* mm	<NG>
<LAND VOLUME>			
• TOP LAND VOLUME :		1+2	*.* * * * * * * * * CC
		1	*.* * * * * * * * * CC
		2	*.* * * * * * * * * CC
• SECOND LAND VOLUME :		3+4	*.* * * * * * * * * CC
		3	*.* * * * * * * * * CC
		4	*.* * * * * * * * * CC
• THIRD LAND VOLUME :		5+6	*.* * * * * * * * * CC
		5	*.* * * * * * * * * CC
		6	*.* * * * * * * * * CC
811		812	
PISTON 3D DISPLAY		INNER SPACE SHAPE DISPLAY	
813		814	
AUTOMATIC OPTIMIZATION		RE-INPUT SPECIFICATION VALUES	
815		SAVE & END	

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F I G. 9A

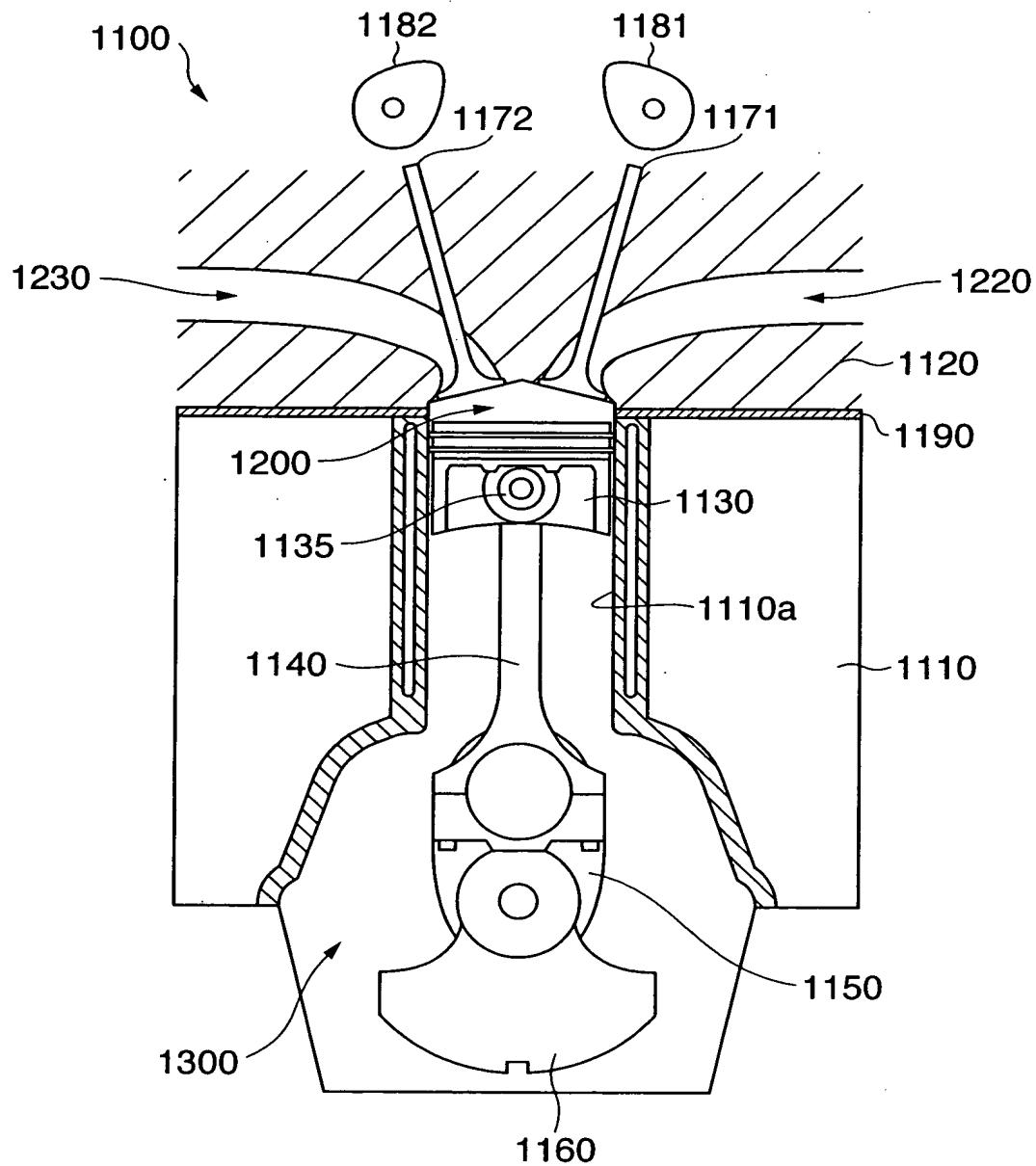


F I G. 9B



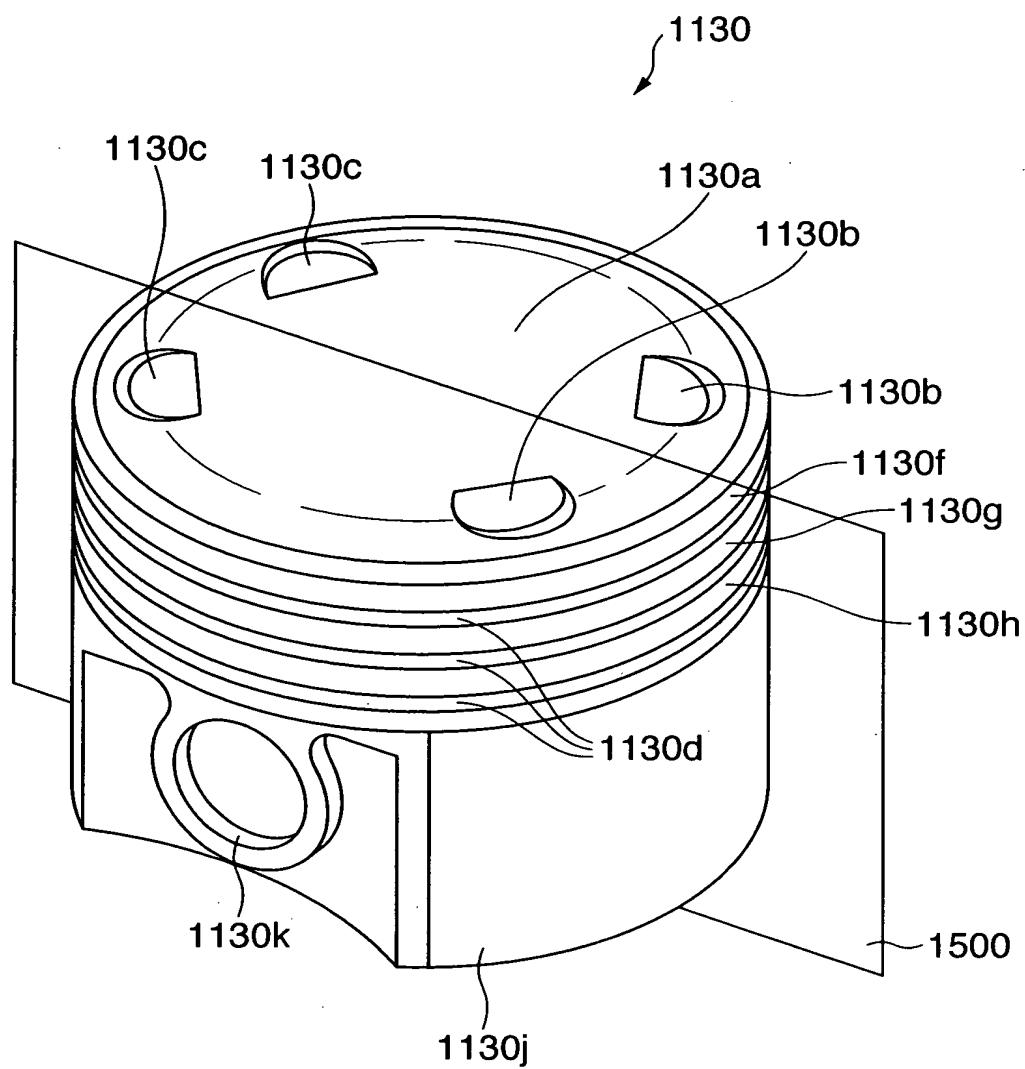
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FIG. 10



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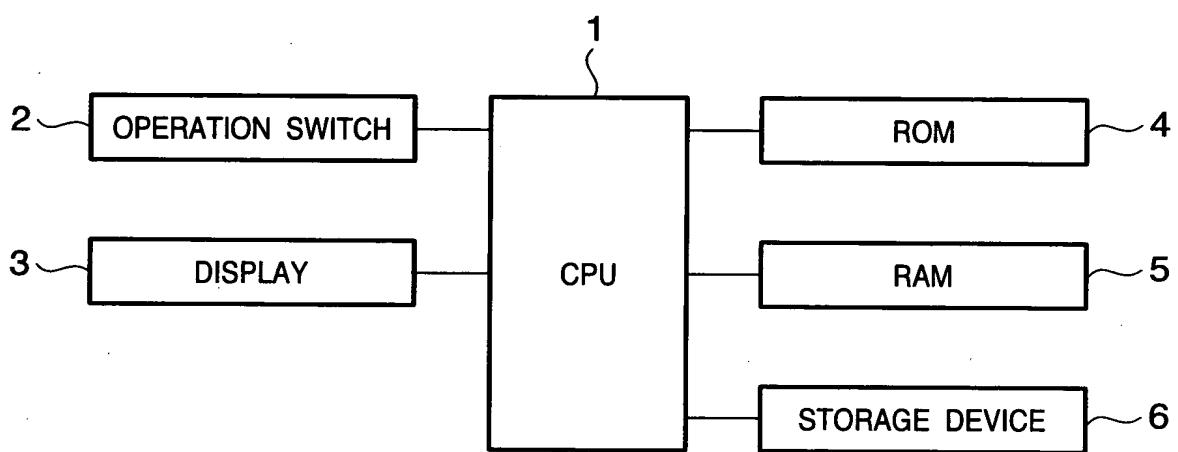
F I G. 11



TITLE: PISTON DESIGN SUPPORT PROGRAM,
DESIGN SUPPORT METHOD, AND DESIGN SUPPORT APPARATUS
INVENTORS: Yasutomo KUSUNOKI et al.
SERIAL NO.: Unassigned
DOCKET NO.: 725.1164

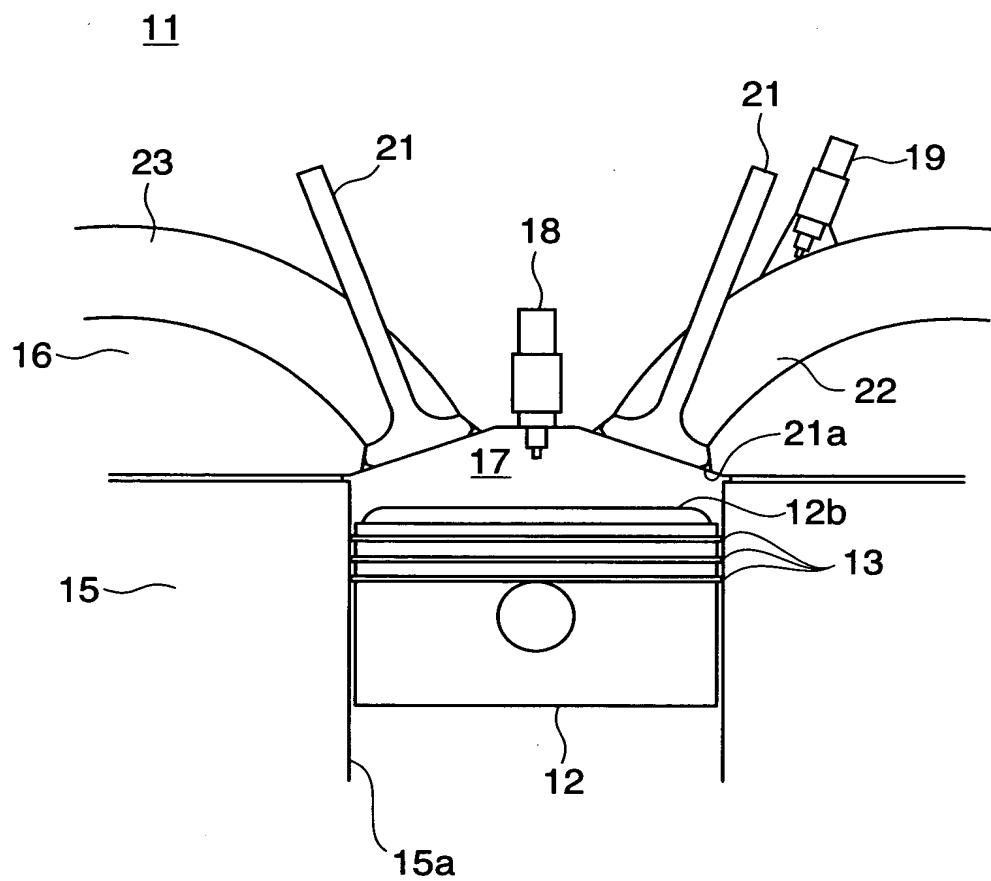
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FIG. 12



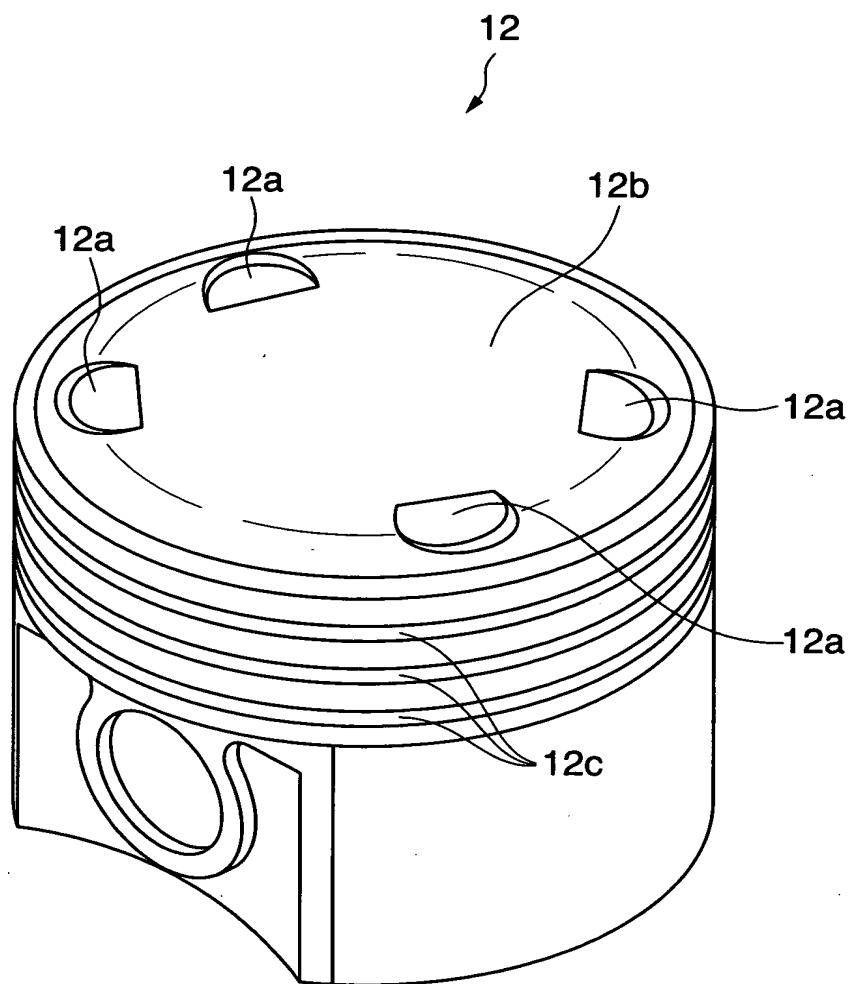
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F I G. 13



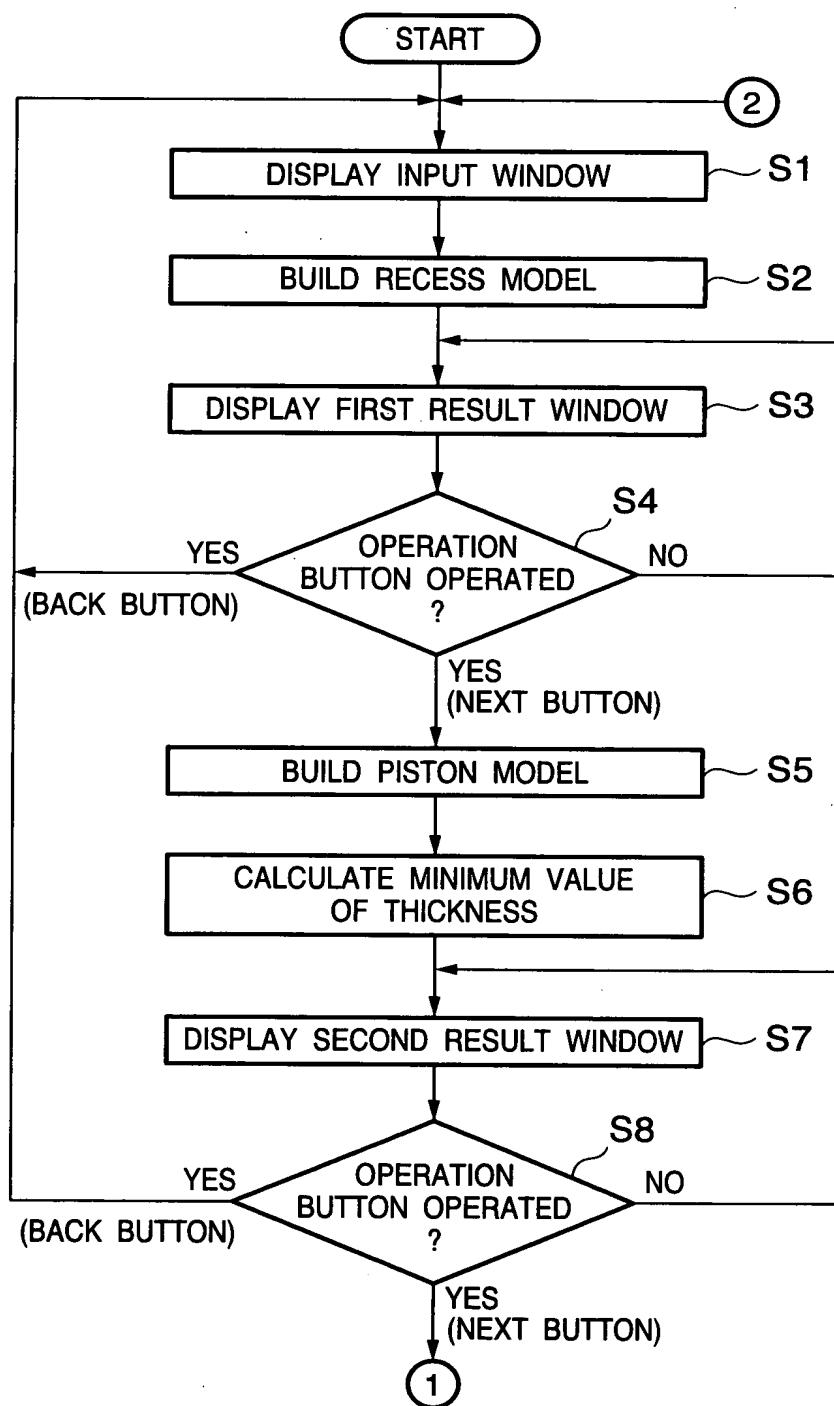
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F I G. 14



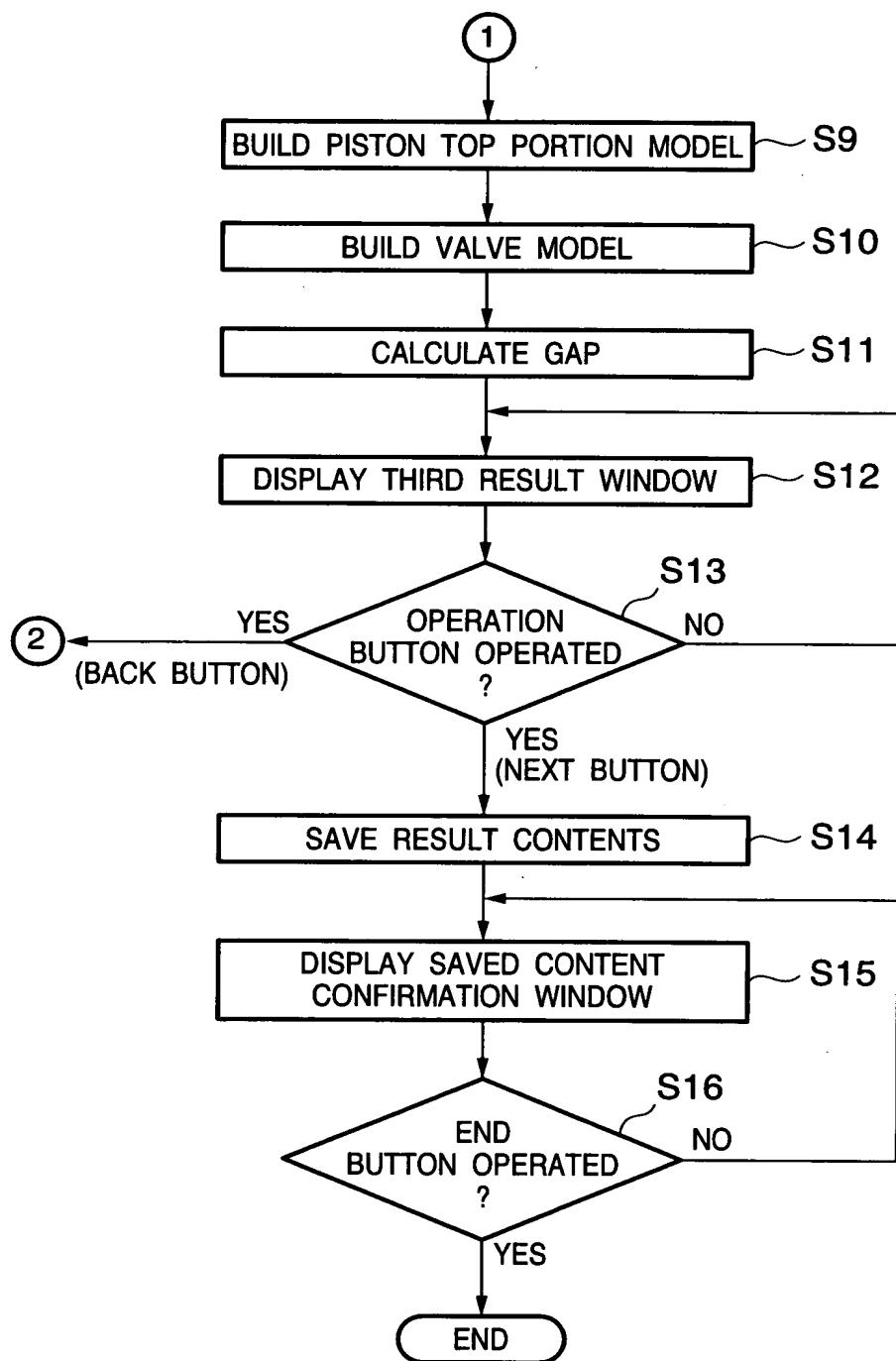
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FIG. 15



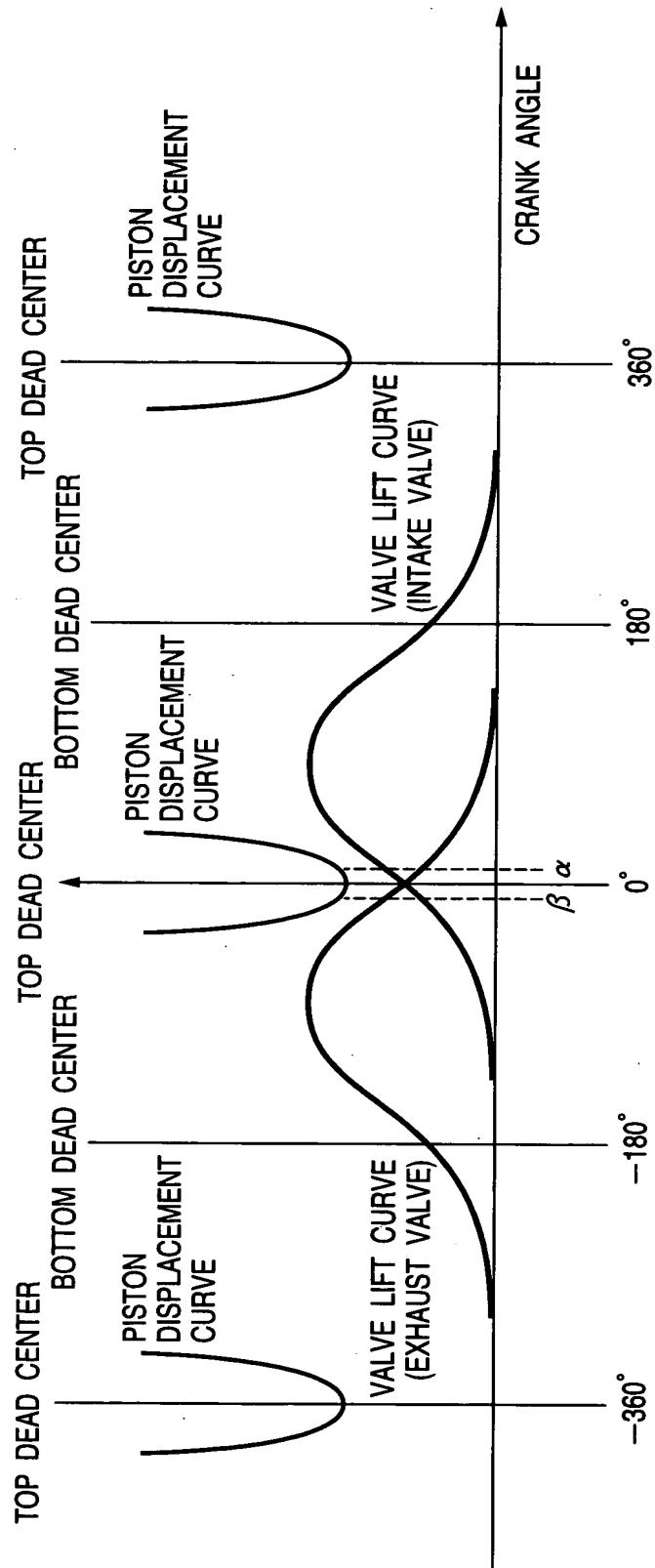
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FIG. 16



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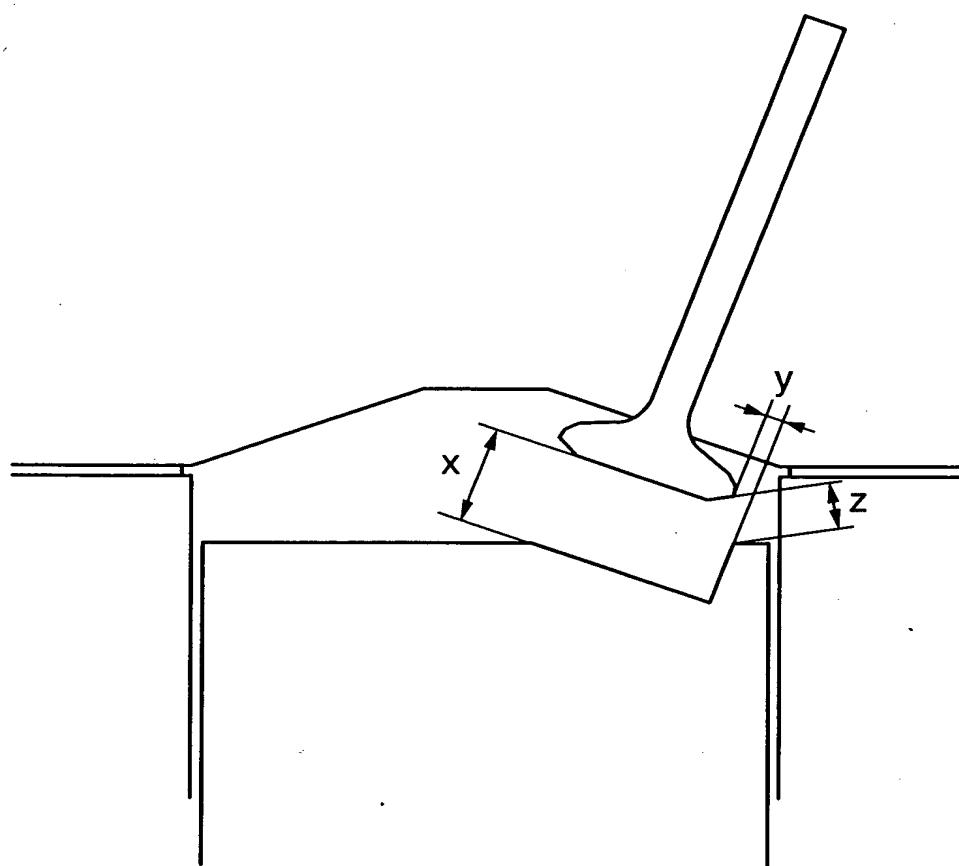
FIG. 17



TITLE: PISTON DESIGN SUPPORT PROGRAM,
DESIGN SUPPORT METHOD, AND DESIGN SUPPORT APPARATUS
INVENTORS: Yasutomo KUSUNOKI et al.
SERIAL NO.: Unassigned
DOCKET NO.: 725.1164

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FIG. 18



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F I G. 19

